

UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,129	04/20/2001	William F. Stout	39572X00	9516
21269	7590 09/17/2003			
PEPPER HAMILTON LLP ONE MELLON CENTER, 50TH FLOOR 500 GRANT STREET			EXAMINER	
			FERNSTROM, KURT	
PITTSBURGH, PA 15219			ART UNIT	PAPER NUMBER
			3712	13
			DATE MAILED: 09/17/2003	17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary Examiner Kurl Fernstrom 3712 The MAILING DATE of this communication appears on the cover sheet with the correspond nce address Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. If NO period for reply is specified above, he maximum statutory period will apply and will expire (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication. Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any examed patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on							
## Examiner Art Unit 3712 The MAILING DATE of this communication appears on the cover sheet with the correspond nce address Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ③ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. • Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after StX (6) MONTHS from the mailing date of this communication. • If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. • If NO period for reply is specified above, the maximum statutory period will apply and will expire StX (6) MONTHS from the mailing date of this communication. • Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). • Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) □ Responsive to communication(s) filed on 2a) □ This action is FINAL. 2b) □ This action is non-final. 3) □ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) □ Claim(s) 1-42 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration.		Application No.	Applicant(s)				
The MAILING DATE of this communication appears on the cover sheet with the correspond nce address Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If the period for reply is specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filled on 2a) This action is FINAL.	Office Action Commence	09/838,129	STOUT ET AL.				
The MAILING DATE of this communication appears on the cover sheet with the correspond nce address Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filled on 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-42 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration.	Office Action Summary	Examiner	Art Unit				
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply is specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-42 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed.							
THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S. C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-42 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed.							
2a) ☐ This action is FINAL . 2b) ☐ This action is non-final. 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) ☐ Claim(s) 1-42 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) ☐ Claim(s) is/are allowed.	THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period was Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	i6(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-42 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed.	1) Responsive to communication(s) filed on						
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-42 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed.	2a) ☐ This action is FINAL. 2b) ☑ Thi	s action is non-final.					
Disposition of Claims 4)⊠ Claim(s) 1-42 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5)□ Claim(s) is/are allowed.	•						
4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed.		ex parte Quayle, 1955 C.D. 11, 4	133 U.G. 213.				
5) Claim(s) is/are allowed.	4) Claim(s) 1-42 is/are pending in the application	4)⊠ Claim(s) 1-42 is/are pending in the application.					
	4a) Of the above claim(s) is/are withdrawn from consideration.						
Claim(a) 4 43 in/arc minetad	5) Claim(s) is/are allowed.						
6) <u>⊠</u> Claim(s) <u>1-42</u> is/are rejected.	6)⊠ Claim(s) <u>1-42</u> is/are rejected.						
7) Claim(s) is/are objected to.	7) Claim(s) is/are objected to.)☐ Claim(s) is/are objected to.					
8) Claim(s) are subject to restriction and/or election requirement.							
Application Papers							
9) The specification is objected to by the Examiner.			•				
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). 11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.			• •				
If approved, corrected drawings are required in reply to this Office action.	ved by the Examiner.						
12) The oath or declaration is objected to by the Examiner.							
Priority under 35 U.S.C. §§ 119 and 120							
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a) ☐ All b) ☐ Some * c) ☐ None of:		p a	, (5) 5: (1).				
1. Certified copies of the priority documents have been received.	<u> </u>	s have been received.					
2. Certified copies of the priority documents have been received in Application No							
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).							
* See the attached detailed Office action for a list of the certified copies not received.							
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).							
 a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121. 							
Attachment(s)							
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 5) Notice of Informal Patent Application (PTO-152) 6) Other:	2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) Notice of Informal F					

Serial Number: 09/838,129 Page 2

Art Unit: 3712

DETAILED ACTION

Claim Rejections - 35 USC § 101

- 1. 35 U.S.C. 101 reads as follows:
 - Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
- 2. Claims 1-42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to a method of constructing a mathematical model. Mathematical models are abstract ideas, which are not patentable subject matter. The claimed method is not a physical process, in that there is no physical transformation of matter from one state into another. Also, the invention is not in the technological arts, as no technology, indeed no structure at all, is part of the claimed invention. As a result, the subject matter of the claimed invention is non-statutory. See *Ex Parte Bowman*, 61 USPQ2d 1669 (Unpublished) and *In re Foster*, 169 USPQ 99 (CCPA 1971).

The Federal Circuit has applied the practical application test to determine whether claimed subject matter is patentable under 35 USC 101. ATT Corp. V. Excel Communications, Inc., 172 F.3d 1352, 1359-60, 50 USPQ2d 1447, 1452-53 (Fed. Cir. 1999); State Street Bank & Trust Co. V. Signature Financial Group Inc., 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1600 (Fed. Cir. 1998). The test for practical application requires that a "useful, concrete and tangible result"

Serial Number: 09/838,129 Page 3

Art Unit: 3712

be accomplished. The present invention does not meet the last two requirements of the test, that is; it does not produce a result which is concrete or tangible.

Conclusion

- 3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Greenfield and Sheehan disclose methods of assessment and prediction.
- 4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kurt Fernstrom whose telephone number is (703) 305-0303.

KF

September 11, 2003

Kut Ferston